

**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TENNESSEE
AT KNOXVILLE**

EMERACHEM HOLDINGS, LLC,)	
)	
Plaintiff,)	
)	
v.)	Case No. 3:14-cv-132
)	
VOLKSWAGEN GROUP OF AMERICA, INC.,)	
VOLKSWAGEN AG and VOLKSWAGEN,)	
GROUP OF AMERICA CHATTANOOGA)	
OPERATIONS, LLC,)	
Defendants.)	

**DEFENDANTS' OPENING BRIEF IN SUPPORT OF ITS
MOTION FOR PARTIAL SUMMARY
JUDGMENT OF NO WILLFUL INFRINGEMENT**

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I. INTRODUCTION

Volkswagen Group of America, Inc., et al. (collectively “Volkswagen”) move for partial summary judgment under Fed. R. Civ. P. 56(a) that, as a matter of law, any infringement of EmeraChem’s U.S. Patent No. 5,599,758 (“the ’758 patent; Exh. VW1”) and/or U.S. Patent No. 7,951,346 (“the ’346 patent; Exh. VW2”) by Volkswagen was not willful under 35 U.S.C. §284.¹

The issue of willfulness is raised by EmeraChem in its Amended Complaint (D.I. 25). If Volkswagen is found to infringe the ’758 patent and/or the ’346 patent, and if the jury or this Court finds that such infringement was willful under the standard set forth in §284, this Court, at its discretion, may then award to EmeraChem up to three times the amount of compensatory damages assessed by the jury. 35 U.S.C. §284. Courts have construed §284 to require “a finding of willful infringement as a prerequisite to the award of enhanced damages.” *i4i Ltd. v. Microsoft Corp.*, 598 F.3d 831, 858 (Fed. Cir. 2010), *aff’d on other grounds*, 131 S.Ct. 2238 (2011); *see also Graco, Inc. v. Binks Mfg. Co.*, 60 F.3d 785, 792 (Fed. Cir. 1995) (“Willfulness of the infringement is the sole basis for the Court’s exercise of its discretion to enhance damages under §284.”).

In its controlling *Halo* decision, the Supreme Court explained that “[a]wards of enhanced damages under the Patent Act over the past 180 years establish that ***they are not to be meted out in a typical infringement case***, but are instead designed as a “punitive” or “vindictive” sanction for egregious infringement behavior. The sort of conduct warranting enhanced damages has been variously described in our cases as willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or – indeed – characteristic of a pirate [S]uch [enhanced] damages are

¹ Neither this District’s Local Rules nor the Scheduling Order for this case place any restriction on the number or the early timing of summary judgment motions filed by a party. Fed. R. Civ. P. 56(b) (“Unless a different time by local rule or the Court orders otherwise, a party may file a motion for summary judgment *at any time* until 30 days after the close of all discovery.”); *Cf.* E.D. Tenn. L.R.; D.I. 90. Volkswagen, therefore, understands that it will have the opportunity to file an additional motion for summary judgment to address other claims and defenses, as appropriate.

generally reserved for egregious cases of culpable behavior.” *Halo Electronics, Inc. v. Pulse Electronics, Inc.*, 136 S. Ct. 1923, 1932 (2016) (emphasis added).

1. This Is Just A Typical Patent Case: No Facts Give Rise To A Finding Of Willfulness As To Both The '758 Patent And The '346 Patent

Here, post-*Halo*, partial summary judgment of no willfulness as to both the '758 patent and the '346 patent is warranted because, as explained below, the present suit is just a “typical” infringement case. *See, e.g., Koninklijke Phillips N.V. v. Zoll Med. Corp.*, 257 F. Supp.3d 159, 162-63 (D. Mass. 2017) (Plaintiffs have not met their burden to show that defendant’s conduct was so malicious that a finding of willful infringement is warranted in this case.”); *Move, Inc. v. Real Estate Alliance Ltd.*, 221 F. Supp.3d 1149, 1173 (C.D. Cal. 2016) (the district court’s discretion to enhance damages under §284 “should be exercised only in ‘egregious cases of misconduct beyond typical infringement.’”, quoting *Halo*, 136 S.Ct. at 1935).

2. As To The '346 Patent, Volkswagen Had No Pre-Suit Knowledge Of The '346 Patent And Cannot Be Held To Have Willfully Infringed As A Matter of Law

Here, as to the '346 patent, there is an additional reason why Volkswagen cannot be held to have willfully infringed as a matter of law, which is that Volkswagen had no pre-suit knowledge of the '346 patent.

After *Halo*, pre-suit knowledge of the patent alleged to be willfully infringed continues to be a prerequisite to enhanced damages. *Halo*, 136 S. Ct. at 1933 (“But culpability is generally measured against the knowledge of the actor at the time of the challenged conduct.”); *see also In re Seagate Tech., LLC*, 497 F.3d 1360, 1374 (Fed. Cir. 2007) (“However, when a complaint is filed, a patentee must have a good faith basis for alleging willful infringement. Fed. R. Civ. P. 8 & 11(b). So a willfulness claim asserted in the original complaint must necessarily be grounded exclusively in *the accused infringer’s pre-filing conduct*.”). EmeraChem has admitted that it did not inform Volkswagen of the '346 patent until the filing of the Complaint. Exh. VW3 at p. 2

(Response to RFA No. 4). Volkswagen has certified that it did not learn of the '346 patent by any other independent means prior to the service of the Complaint in this suit. Exh. VW4 at p. 8 (VW Answer to Int. No. 10). Consequently, partial summary judgment of no willfulness of any infringement of the '346 patent is warranted. *bioMerieux, S.A. v. Hologic, Inc.*, 2020 WL 759546 (D. Del. Feb. 7, 2020) (“With respect to [Defendant] Grifols, the record also lacks evidence of knowledge of the patents-in-suit until after this suit was filed Accordingly, the Court will grant Defendants’ motion for summary judgment of no willful infringement.”); *Olaf Sööt Design, LLC v. Daktronics, Inc.*, 325 F. Supp.3d 456, 461 (S.D.N.Y. 2018) (“If Defendants can point to an absence of record evidence concerning its knowledge of the ‘485 patent and its claims – an essential element to a willful infringement claim – summary judgment is proper.”).

II. BACKGROUND AND FACTS

EmeraChem’s asserted patents are directed to large scale, stationary power plants. Volkswagen demonstrated this fact during the *Markman* Tutorial and the *Markman* Hearing, without any attempts at refutation by EmeraChem. Despite this undisputed nature of the asserted patents, EmeraChem has attempted to stretch the applicability of the patent claims to cover a motor vehicle. In view of the applicability of EmeraChem’s patents to power plants, it is not surprising that Volkswagen AG, an automobile manufacturer, was not aware of the '758 patent until notified thereof by EmeraChem via letter dated June 11, 2012 (“The June 11, 2012 Letter;” Exh. VW5) and was not aware of the '346 patent until being served with EmeraChem’s Complaint (D.I. 1) in this action.

It is important to note that the two remaining asserted patents are not related to each other and cover a vastly different time period. Indeed, one of the patents, the '758 patent, expired more than six years ago.

The '758 patent (Exh. VW1) issued on February 4, 1997 and expired on December 23, 2014. See 35 U.S.C. §154(a)(2) (“a term beginning on the date on which the patent issues and ending 20 years from the date on which the application for patent was filed in the United States”). The '758 patent discloses a method for regenerating the NO_x catalyst/absorber that was disclosed in an even earlier patent, i.e., EmeraChem’s U.S. Patent No. 5,451,558 (“the '558 patent”; Exh. VW6), which expired more than seven years ago, on February 4, 2014. The NO_x catalyst/absorber disclosed in the '558 patent was used in gas turbine power plants for generating electricity; it was not disclosed as being useful in motor vehicles. Exh. VW6 at col. 1, ln. 19 – col. 2, ln. 41. The '758 patent discloses a method for regenerating the '558 patent’s NO_x catalyst absorber *in situ* within the gas turbine power plant; meaning that it was stationary and was not part of any motor vehicle. Exh. VW1 at col. 1, ln. 10 – col. 2, ln. 44.

The '346 patent (Exh. VW2) issued on May 31, 2011 and has not yet expired. See 35 U.S.C. §154(a)(2). The '346 patent relates to catalytic emissions trap and a particulate matter indicator, and relies upon particulate matter measurement standards set forth by the Environmental Protection Agency (“EPA”) that apply to stationary sources only. Specifically, the '346 patent relies on EPA standardized Methods 5, 201A and 202 to measure reductions in particulate matter, which are expressly limited to *stationary sources* only. Exh. VW2 at col. 2, ln 36 – 47 & Fig. 1; *see also* <http://www.epa.gov/ttn/emc/promgate.html>.

1. The Pre-Suit Discussions Between EmeraChem And Volkswagen AG Concerning The '758 Patent

EmeraChem is presently accusing Volkswagen’s diesel vehicles sold in the United States from March 31, 2008 to December 23, 2014 of infringing the '758 patent. Exh. VW7 at p. 1. More than four years after the commercial introduction of these accused vehicles, EmeraChem first approached Volkswagen AG about the '758 patent, by The June 11, 2012 Letter. EmeraChem’s

allegations of infringement have evolved over time, including changing which patents EmeraChem believed were relevant and asserted against Volkswagen (*compare e.g.*, D.I. 1 & D.I. 80) and changing which claims from those patents it believed were relevant and asserted against Volkswagen. Throughout the entirety of the pre-suit discussions between EmeraChem and Volkswagen AG, and at every turn, Volkswagen AG presented counter-arguments and evidence to demonstrate non-infringement and patent invalidity.

Through The June 11, 2012 Letter, EmeraChem informed Volkswagen AG's in-house Patent Department that EmeraChem believed that the NO_x storage catalysts being sold with the smaller TDI diesel engine motor vehicles sold in the United States "infringe several claims of U.S. Patent Nos. 5,451,558; 5,599,758; and 5,953,911". Exh. VW5 at EC191-92. The "Infringement Analysis" attached to The June 11, 2012 Letter limited the accusation of infringement of the '758 patent to *just claim 1 of the '758 patent*, while also accusing Volkswagen AG of infringing claims 1 and 33 of the '558 patent and claim 1 of the '911 patent. Exh. VW5 at EC197-99. Nevertheless, EmeraChem represented to Volkswagen AG that "[t]he purpose of this letter is to start a meaningful business dialogue" and that EmeraChem was seeking a NO_x storage catalyst supply arrangement with Volkswagen AG. Exh. VW5 at EC192. EmeraChem further represented to Volkswagen AG that EmeraChem "is confident that it can meet VOLKSWAGEN'S quality standards, and do so at a competitive price." Exh. VW5 at EC192.

Volkswagen has certified that it first became aware of the '758 patent as a result of The June 11, 2012 Letter. Exh. VW4 at pp. 5-6 (Answer to Int. No. 7).

After receiving The June 11, 2012 Letter, Volkswagen AG contacted its supplier of the NO_x-storage catalyst at issue. By letter dated December 20, 2012, Volkswagen AG informed EmeraChem that, as informed by its supplier, the accused NO_x-storage catalysts did not comprise a catalytic component being intimately and entirely coated with an absorber, as required by claim 1

of the '558 Patent. Exh. VW8. Volkswagen AG also informed EmeraChem that the accused NO_x-storage catalysts are not made by “a process for preparing a material for removing gaseous pollutions comprising depositing from a solution over an oxidation catalyst specie an absorber thereby coating said oxidation catalyst specie with said absorber” as recited in claim 33 of the '558 Patent. Exh. VW8. Volkswagen AG further advised EmeraChem that it needed more time to announce its position on the '911 and '758 Patents. Exh. VW8.

On January 24, 2013, Volkswagen AG retained the U.S. patent law firm of Davidson, Davidson & Kappel, LLC to provide legal advice regarding the '558 patent, the '758 patent, and the '911 patent with respect to certain Volkswagen products. Exh. VW9. Thus, Volkswagen AG had its in-house patent counsel and outside U.S. patent counsel providing legal advice on EmeraChem's three asserted patents.

By email dated January 26, 2013, EmeraChem offered to meet with Volkswagen AG to explore the following three optional paths forward:

1. EmeraChem to become a supplier of catalytic products and services to Volkswagen as per your guidance and specification.
2. EmeraChem and Volkswagen to enter into a technology license agreement where EmeraChem is compensated for past royalties due and all future royalties on NO_x Trap products sold by Volkswagen plus other fees and expenses.
3. Volkswagen to purchase the applicable patents from EmeraChem thereby obtaining unencumbered rights to practice, sell and license the technologies based upon mutually agreed terms (subject to a grant-back license to EmeraChem for its Fields of Use outside on-road vehicle applications).

Exh. VW10.

By email dated February 15, 2013, Volkswagen AG agreed to a meeting between Volkswagen AG's purchasing department representatives and EmeraChem to proceed with EmeraChem's offered option 1 and discuss how EmeraChem could become a NO_x exhaust reduction catalyst supplier to Volkswagen AG. Exh. VW11 at EC206. Additionally,

Volkswagen AG represented that it “in any event would not have paid more than negligible amounts for options 2 and 3, *given, for example, certain prior art*. Option 1 has the possibility of benefitting both parties substantially.” Exh. VW11 at EC206 (emphasis added).

In March 2013, Volkswagen AG and EmeraChem entered into a Non-Disclosure Agreement covering discussions “for the purpose of considering EmeraChem as a possible supplier to Volkswagen of NO_x emission reducing catalysts.” Exh. VW12. On April 11, 2013, EmeraChem met with representatives of Volkswagen AG’s purchasing department at Volkswagen AG’s facilities in Wolfsburg, Germany for the purpose of considering EmeraChem as a possible supplier to Volkswagen AG of NO_x reducing catalysts.

By letter dated April 24, 2013, EmeraChem acknowledged that as a result of the April 11, 2013 meeting, EmeraChem was pursuing a proposal to supply Volkswagen AG with metal substrates, which EmeraChem characterized as being unrelated to EmeraChem’s NO_x-storage catalyst patents (i.e., the ’558, ’758, and ’911 Patents). Exh. VW13 at EC212. EmeraChem also represented that even if EmeraChem were to enter into metal substrate supply agreement with Volkswagen AG, EmeraChem would still pursue its infringement claims against Volkswagen under the ’558, ’758, and ’911 Patents. Exh. VW13 at EC213.

By letter dated May 30, 2013 (Exh. VW14), Volkswagen AG provided EmeraChem with a copy of Toyota Motor’s prior art Japanese Publication No. JP05-317652 (Exh. VW15) which discloses the regeneration of a catalyst with an absorber material selected from an acetate of alkaline earth metals.

The negotiations between Volkswagen AG and EmeraChem then stalled, and EmeraChem filed the Complaint (D.I. 1) on March 31, 2014.

2. The '346 Patent

EmeraChem is presently accusing Volkswagen's diesel vehicles sold in the United States from August 5, 2010 to the present, of infringing the '346 patent. Exh. VW7 at p. 1. The June 11, 2012 Letter did not mention EmeraChem's '346 patent, even though the '346 patent issued a year earlier on May 31, 2011 (Exh. VW2 at p. 1) and the allegedly infringing Volkswagen diesel vehicles had already been commercially available for about two years by the time of The June 11, 2012 Letter. Cf. Exh. VW5. During the nearly two years of pre-suit discussions between EmeraChem and Volkswagen AG, EmeraChem did not mention the '346 patent.

On March 31, 2014, EmeraChem filed its original Complaint which included an allegation that Volkswagen is infringing EmeraChem's '346 patent. Doc. No. 1. Volkswagen certified that it first became aware of EmeraChem's '346 Patent after it was served with EmeraChem's original Complaint (Doc. No. 1). Exh. VW4 at p. 8 (Answer to Int. No. 10).

III. SUMMARY JUDGMENT LEGAL STANDARDS

"The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56 (a); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986). The moving party has the initial burden of proving the absence of a genuinely disputed material fact relative to the claims in question. *Id.* at 330.

"By its very terms, this standard provides that the mere existence of some alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment; the requirement is that there be no genuine issue of material fact." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247-48 (1986). Material facts are those "that could affect the outcome" of the proceeding, and "a dispute about a material fact is 'genuine' if the evidence is sufficient to permit a reasonable jury to return a verdict for the nonmoving party." *Lamont v. New Jersey*, 637

F.3d 177, 181 (3d Cir. 2011) (quoting *Anderson*, 477 U.S. at 248). The burden on the moving party may be discharged by pointing out to the district court that there is an absence of evidence supporting the non-moving party's case. *Celotex*, 477 U.S. at 323.

Once the movant demonstrates the absence of a genuine dispute over any material fact, the burden shifts to the non-movant to show that there is a genuine factual issue for trial. *Celotex*, 477 U.S. at 323–24; Fed. R. Civ. P. 56(c)(1). When determining whether a genuine issue of material fact exists, the court must view the evidence in the light most favorable to the non-moving party and draw all reasonable inferences in that party's favor. *Scott v. Harris*, 550 U.S. 372, 380 (2007); *Wishkin v. Potter*, 476 F.3d 180, 184 (3d Cir. 2007).

If the non-moving party fails to make a sufficient showing on an essential element of its case with respect to which it has the burden of proof, the moving party is entitled to judgment as a matter of law. *Celotex*, 477 U.S. at 322. Here, as the patentee, EmeraChem bears the burden of proving that any infringement of the '758 patent and/or the '346 patent by Volkswagen was willful. *Golden Blount v. Robert H. Peterson Co.*, 438 F.3d 1354, 1368 (Fed. Cir. 2006). "There is no evidentiary presumption that every infringement is willful." *Norian Corp. v. Stryker Corp.*, 363 F.3d 1321, 1332 (Fed. Cir. 2004). Willful infringement is not established by the simple fact of infringement, even where the accused infringer has knowledge of the patent. *Id.*; *Halo*, 136 S. Ct. at 1936 ("First, the Court's references to 'willful misconduct' do not mean that a court may award enhanced damages simply because the evidence shows that the infringer knew about the patent *and nothing more*." (J. Breyer, concurring)).

IV. ARGUMENT

A. Any Infringement Of The '758 Patent By Volkswagen Was Not Willful As A Matter Of Law

EmeraChem alleges that "[t]he acts of Defendants complained of herein have been done willfully with knowledge of, or reason to know, that they infringe, contribute to infringement, and

induce infringement of the claims of the '758 Patent.” D.I. 25 at p. 7, ¶31. EmeraChem is requesting a trebling of any damages award under §284 as a result of this alleged willful infringement. D.I. 25 at p. 12, ¶4. Volkswagen seeks partial summary judgment on this portion of EmeraChem’s claim. Partial summary judgment of no willfulness as to any infringement of the '758 patent is warranted here because EmeraChem cannot meet its burden of showing Volkswagen engaged in egregious misconduct beyond typical infringement cases. *Halo*, 136 S.Ct. at 1932 & 1936; *Move*, 221 F. Supp.3d at 1173 (“This is not an egregious case. REAL produces no evidence that Move engaged in any ‘misconduct beyond typical infringement;’ at most, REAL’s evidence indicates that Move continued to use the allegedly infringing method after it learned of REAL’s patents.”).

“[A] party’s pre-suit knowledge of the patent is not by itself sufficient to find ‘willful misconduct’ such that the Court can award enhanced damages.” *Ansell Healthcare Prods., LLC v. Reckitt Benckiser LLC*, 2018 WL 620968, *6 (D. Del. Jan. 30, 2018) (citing *Halo*, 136 S.Ct. at 1936 (Breyer, J., concurring), granting summary judgment of no willful infringement). “Rather, the patentee must identify evidence beyond pre-suit knowledge of the patent to show that the accused infringer’s infringement is ‘egregious,’ ‘deliberate,’ or ‘wanton.’.” *Id.* In granting summary judgment of no willfulness, the district court in *Intellectual Ventures I* explained that the accused infringer’s continuing to “update, produce and sell” the accused product even after the suit was filed could not support willful infringement because such behavior is not ‘beyond typical infringement’.” *Intellectual Ventures I LLC v. Symantec Corp.*, 234 F. Supp.3d 601, 611-12 (D.Del. 2017), *aff’d*, 725 F. App’x 976 (Fed. Cir. 2018). At most, Volkswagen continued to “update, produce and sell” the accused VW diesel vehicles after EmeraChem filed suit which cannot support willful infringement as a matter of law. *Intellectual Ventures I*, 234 F. Supp.3d at 611-12.

**1. The Pre-Complaint EmeraChem – VW Business Negotiations
Evidences Volkswagen’s Good Faith**

The *pre-suit* conduct of the accused infringer continues to be the focus of the willfulness inquiry. *Halo*, 136 S. Ct. at 1933 (“But culpability is generally measured against the knowledge of the actor at the time of the challenged conduct.”); *see also Seagate*, 497 F.3d at 1374 (“However, when a complaint is filed, a patentee must have a good faith basis for alleging willful infringement. Fed. R. Civ. P. 8 & 11(b). So a willfulness claim asserted in the original complaint must necessarily be grounded exclusively in the accused infringer’s pre-filing conduct.”). In its Interrogatory No. 12, Volkswagen requested that EmeraChem “[i]dentify all bases for and evidence supporting EmeraChem’s contentions that Volkswagen willfully infringed the Asserted Claims.” The only pre-complaint activity that EmeraChem pointed to in its Response, other than continued sales of the accused diesel vehicles, was the “stalled” business discussions between EmeraChem and Volkswagen AG. Exh. VW16 at pp. 12-13 (Response to Int. No. 12).

During the relevant *pre-complaint* time period, EmeraChem and Volkswagen entered into negotiations to discuss business opportunities as well as to resolve the infringement dispute on a business basis, including a possible license or a purchase of the asserted patents. In The June 11, 2012 Letter, EmeraChem represented to Volkswagen AG that “[t]he purpose of this letter is to start a meaningful business dialogue” and that EmeraChem was seeking a NOx storage catalyst supply arrangement with Volkswagen AG. Exh. VW5 at EC192. EmeraChem further represented to Volkswagen AG that EmeraChem “is confident that it can meet VOLKSWAGEN’S quality standards, and do so at a competitive price.” Exh. VW5 at EC192. By email dated January 26, 2013, EmeraChem offered to meet with Volkswagen AG to explore the following three optional paths forward:

1. EmeraChem to become a supplier of catalytic products and services to Volkswagen as per your guidance and specification.

2. EmeraChem and Volkswagen to enter into a technology license agreement where EmeraChem is compensated for past royalties due and all future royalties on NO_x Trap products sold by Volkswagen plus other fees and expenses.
3. Volkswagen to purchase the applicable patents from EmeraChem thereby obtaining unencumbered rights to practice, sell and license the technologies based upon mutually agreed terms (subject to a grant-back license to EmeraChem for its Fields of Use outside on-road vehicle applications).

Exh. VW10.

By email dated February 15, 2013, Volkswagen AG rejected EmeraChem's offer of a license (option 2) and EmeraChem's offer to sell the patents (option 3), but agreed to a meeting between Volkswagen AG's purchasing department representatives and EmeraChem to proceed with EmeraChem's offered option 1 and discuss how EmeraChem could become a NO_x exhaust reduction catalyst supplier to Volkswagen AG. Exh. VW11 at EC206. In March 2013, Volkswagen AG and EmeraChem entered into a Non-Disclosure Agreement covering discussions "for the purpose of considering EmeraChem as a possible supplier to Volkswagen of NO_x emission reducing catalysts." Ex. VW12 at EC208. On April 11, 2013, EmeraChem met with representatives of Volkswagen AG's purchasing department at Volkswagen AG's facilities in Wolfsburg, Germany for the purpose of considering EmeraChem as a possible supplier to Volkswagen AG of NO_x reducing catalysts. By letter dated April 24, 2013, EmeraChem acknowledged that as a result of the April 11, 2013 meeting, EmeraChem was pursuing a proposal to supply Volkswagen AG with metal substrates. Exh. VW13 at EC212.

Even though these business-based negotiations did not reach fruition, they are evidence of Volkswagen's good faith, not egregious misconduct, as a matter of law.

Rexnord did not evidence an "utter disregard for the Laitram patents" or "obnoxious conduct" when it attempted to acquire rights to the Laitram products through merger or license. The Court finds that such attempts, prior to initiating its own independent design effort, is evidence of Rexnord's good faith.

Rexnord, Inc. v. Laitram Corp., 1988 WL 141526, *41 (E.D. Wis. Jan. 28, 1988); *see also King Inst. Corp. v. Otari Corp.*, 767 F.2d 853, 867 (Fed. Cir. 1985) (“Negotiations might even support an infringer’s good faith if the infringer could show it desired a license agreement as an alternative to unaffordable or expensive litigation costs.”).

2. The So-Called *Read* Factors, Which May Be Considered, Evidence A Lack Of Egregious Misconduct

Pre-*Halo*, the Federal Circuit set forth nine factors that a district court had to consider when assessing whether to enhance damages under §284, which came to be known as the “*Read* factors”. *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 826-28 (Fed. Cir. 1992). Post-*Halo*, it is within a district court’s discretion to now consider some or even none of the *Read* factors. *Presidio Components, Inc. v. American Tech. Ceramics Corp.*, 875 F.3d 1369, 1382-83 (Fed. Cir. 2017); *Georgetown Rail Equip. Co. v. Holland L.P.*, 867 F.3d 1229, 1244-45 (Fed. Cir. 2017). Discussed below are the *Read* factors evidencing a lack of egregious misconduct by Volkswagen. The remaining *Read* factors are either not implicated here in this case and/or are no longer pertinent post-*Halo*.

a. *Read* Factor 1: Whether The Infringer Deliberately Copied The Ideas Of Another

The first *Read* factor is “whether the infringer deliberately copied the ideas or design of another.” *Read*, 970 F.2d at 827. There is no evidence that Volkswagen copied the NO_x storage catalyst of the ’558 patent or the regeneration method of the ’758 patent. To the contrary, EmeraChem’s own analysis of a NO_x storage catalyst obtained as a replacement part for an accused Volkswagen diesel vehicle, evidences that it is not a copy of the ’558 patent. Furthermore, EmeraChem has admitted that the regeneration gas used in the accused Volkswagen diesel vehicles is not disclosed in the ’758 patent.

The Volkswagen diesel powered vehicles using NO_x storage catalysts, which are accused of infringing the ’758 patent, were first commercialized in 2008. Exh. VW7 at p. 1. As

Volkswagen did not become aware of the '758 patent until June 2012, it is not surprising that there is no evidence that Volkswagen copied the '758 patent.

The '758 patent incorporates the '558 patent by reference for the required disclosure of the structure of the NO_x catalyst/absorber to be regenerated (Exh. VW1 at col. 1, ln. 57 – col. 2, ln. 44), and that structure is recited in claims 1 and 13 of the '758 patent. The '558 patent explains that its early, and somewhat inefficient, regeneration method “is accomplished by removing and replacing the spent absorber and disposing of the removed spent absorber.” Exh. VW6 at col. 3, ln. 23-31 & col. 4, ln. 44-47. During the IPR2014-01555 Oral Hearing, EmeraChem’s counsel, Dr. Rasser, explained that this early regeneration method compelled the recited multi-layer structure of the '558 patent’s NO_x catalyst absorber (i.e., an alumina support with a platinum coating thereon at Figs. 1A-1C)):

The importance in the case of this patent is that the inventors were considering regenerating the catalyst after it was devitalized by absorbed NO_x by dissolving the absorber. Potassium carbonate was their example.

And I refer you to column 5, line 60 through column 6, line 13 of the patent, where they describe the regeneration process that they have in mind.

And in step 2 of that regeneration process they exposed the devitalized catalyst to water and they dissolve the potassium carbonate, which then at that time has been converted to potassium

If, of course, the potassium carbonate were sitting underneath the platinum, and you dissolved the potassium carbonate or potassium nitrate, as it may have converted to, then you would, in fact, pull the foundation from under the platinum particles, and the platinum particles would fall off the support.

Exh. VW17 at Tr. 20, ln. 12 – Tr. 21, ln. 6. The accused NO_x storage catalyst does not have this multi-layered structure.

“In the first half of 2013, EmeraChem obtained unused samples of the NO_x absorber catalyst ... as unused replacement parts.” Exh. VW18 at p. 4. “The smaller NO_x storage catalyst was labeled ‘VW169’, [and] the larger one ‘VW162’ Samples were taken from the downstream ‘back’ portion of VW169 (VW169B); from the upstream portion of VW162 (VW162F); [and] from the downstream portion of VW162 (VW162B)....” Exh. VW18 at p. 5. In January 2014, EmeraChem obtained a secondary mass spectrometry (“SIMS”) analysis of samples of VW162B and VW169B taken from this NO_x storage catalyst. Exh. VW18 at p. 6; Exh. VW19 (SIMS analysis).

EmeraChem’s own SIMS analysis shows that the NO_x storage catalyst obtained by EmeraChem does not have the layered structure that is the hallmark of the ’558 patent’s catalyst absorber, but rather “[a]ll elements shown fairly random distributions over the analysis area.” Exh. VW19 at EC67 (Summary results for samples 162B & 169B). That is, in the NO_x storage catalyst obtained by EmeraChem, there is NO_x absorber material “sitting underneath the platinum,” which EmeraChem told the Board was to be avoided. Exh. VW17 at Tr. 21, ln. 1-6. For this reason, the analyzed NO_x storage catalyst is not a copy of the ’558 patent’s NO_x catalyst/absorber which is recited in claims 1 and 13 of the ’758 patent. Indeed, EmeraChem’s interrogatory response laying out its basis for alleging willfulness fails to include any allegation of Volkswagen copying EmeraChem’s patents. Cf. Exh. VW16 at pp. 12-13.

In its Amended Preliminary Infringement Contentions, EmeraChem identified Volkswagen’s diesel engine exhaust during rich mode as correlating with the regenerating gas recited in claims 1 and 13 of the ’758 patent. Exh. VW7 at pp. 11 & 13. However, EmeraChem has admitted that the ’758 patent does not disclose using a diesel exhaust stream as the recited regenerating gas.

REQUEST FOR ADMISSION NO. 18: Admit that the '758 Patent specification does not expressly disclose that a diesel engine's combustion exhaust stream itself can be used as the regenerating gas to remove nitrogen oxides absorbed in or on a devitalized absorber to form a regenerated absorber, as recited in claim 1 of the '758 Patent.

RESPONSE: Admitted.

Exh. VW3 at p. 5. Thus, Volkswagen could not have copied the method of using the diesel engine exhaust as the regenerating gas from the '758 patent because that feature is, admittedly, not disclosed in the '758 patent.

With respect to any commercial embodiments of the '758 patent, EmeraChem has represented that it "has not sold any product, system, method or software that used any of the claimed methods" and that it "understands that the '758 Patent licensees did not sell or offer for sale any product, system, method or software that used any of the claimed methods." Exh. VW16 at p. 7 (Response to Int. No. 6). It logically follows that there can be no evidence that Volkswagen copied a commercial embodiment of the '758 patent because there are no such commercial embodiments of the '758 patent.

b. *Read Factor 2: Whether The Infringer, When He Knew Of The Other's Patent Protection, Investigated The Scope Of The Patent And Formed A Good-Faith Belief That It Was Invalid Or That It Was Infringed.*

The second *Read* factor is "whether the infringer, when he knew of the other's patent protection, investigated the scope of the patent and formed a good-faith belief that it was invalid or that it was not infringed." *Read*, 970 F.2d at 827. Here, on January 24, 2013, a few months after being notified of the '758 patent by EmeraChem, Volkswagen AG retained the U.S. patent law firm of Davidson, Davidson & Kappel, LLC to provide legal advice regarding the '558 patent, the '758 patent, and the '911 patent with respect to certain Volkswagen products. Exh. VW9. Thus, Volkswagen AG acted reasonably by seeking counsel from both its in-house Patent

Department and its outside U.S. patent counsel in connection with the ongoing discussions with EmeraChem concerning of the '558, '758 and '911 patents.

By email dated February 15, 2013, Volkswagen AG told EmeraChem that it “would not have paid more than negligible amounts” for a license under the patents or to purchase the patents outright, as offered by EmeraChem, “given, for example, certain prior art.” Exh. VW11 at EC206; Exh. VW10 (options 2 & 3). In its letter dated May 30, 2013, Volkswagen AG further informed EmeraChem that:

We also note that your damages analysis and assertion that the patents are “essential” is wrong. Volkswagen is free to, and may or may not be, practicing prior art which is as effective or more effective than EmeraChem’s described processes. We note, solely as an example and without exclusion to other prior art, Japanese Publication No. JP 05-317652 to Toyota Motor Corporation, a copy of which is attached. This patent regenerates a catalyst with an absorber material selected from an acetate of alkaline earth metals.

Exh. VW14 at EC220-21. Thus, the evidence is that Volkswagen AG investigated the scope of the '758 patent and formed a good faith belief that it was practicing the prior art, not limited to the Takeshima prior art reference discussed at the *Markman* Tutorial.

Volkswagen’s pre-complaint good-faith belief in the invalidity of the '758 patent claims was confirmed post-complaint by the Patent Office in IPR2014-01558. The Infringement Analysis attached to EmeraChem’s June 11, 2012 letter to Volkswagen AG limited its allegations of infringement of EmeraChem’s '758 Patent to *just claim 1*. Exh. VW5 at EC198. This Infringement Analysis did not include any expansive language with respect to the allegedly infringed claims of the '758 patent, like “at least claim 1” or the alike. *Id.* Tellingly, when EmeraChem was asserting multiple claims in other patents, it expressly said so. Cf. Exh. VW5 at EC197 (expressly asserting claims 1 and 33 of the '558 patent); Exh. VW5 at EC195 (“The '739 patent contains a number of claims dependent from claim 1. Several of these dependent

claims are also infringed....”). Neither EmeraChem’s original Complaint nor Amended Complaint identifies which claim(s) of the ’758 Patent is allegedly infringed by Volkswagen. Cf. Doc. No. 1, ¶¶21-25; Doc. No. 25 at ¶¶26-32. Because the focus of willfulness is the accused infringer’s pre-complaint conduct, the focus should be on Volkswagen’s good-faith belief that claim 1 of the ’758 patent is invalid. The results of IPR2014-01558 confirm Volkswagen AG’s good-faith belief that claim 1 of the ’758 is invalid.

On September 30, 2014, Volkswagen filed its IPR2014-01558 Petition which challenged claims 1-14 and 16-20 of the ’758 Patent under four grounds of unpatentability under §§102 and 103. Exh. VW20 at p. 12. On January 22, 2016, the Board issued its Final Decision finding that claims 1-2, 4-12, 14, and 18-19 are invalid under 35 U.S.C. §103 based on the combination of the ’558 Patent and Saito, and claims 3, 13, 16, 17 and 20 are invalid under §103 based on the combination of the ’558 Patent, Saito and Stiles. Exh. VW21 at pp. 43-46. The Federal Circuit affirmed the Board’s decision as to claims 1-2, 4-14, and 17. *EmeraChem Holdings, LLC v. Volkswagen Group of Am., Inc.*, 859 F.3d 1341, 1348 (Fed. Cir. 2017). The Federal Circuit nevertheless vacated the Board’s decision as to claims 3, 16, and 20, finding that the Board violated the Administrative Procedure Act by not giving EmeraChem adequate notice that Stiles could be applied against claims 3, 16, and 20. *Id.* at 1348-52. However, EmeraChem did not appeal the Board’s substantive finding that claims 3, 16 and 20 would have been obvious, and hence invalid under §103, based on the combination of the ’558 Patent, Saito and Stiles. *Id.*

In sum, the Federal Circuit rendered its decision on June 15, 2017, two years *after* the ’758 patent expired on December 23, 2014. *EmeraChem*, 859 F.3d at 1341. EmeraChem did not inform Volkswagen that it was asserting claims 3 and 16 of the ’758 patent against Volkswagen, until the court-ordered mediation in this case in September 2019, about 4.75 years *after* the ’758 patent expired. EmeraChem did not inform Volkswagen of the substantive basis for its

infringement assertion of claims 3 and 16, like it did for claim 1 in its June 11, 2012 letter (Exh. VW5 at EC198), until EmeraChem served its original Preliminary Infringement Contentions on June 30, 2020, about 5.5 years *after* the '758 patent expired. Exh. VW18 at pp. 11-15. Thus, there is no basis for any allegation of willfulness for claims 3 and 16 of the '758 patent because EmeraChem did not inform Volkswagen of its assertion of those claims until years *after* the '758 patent had already expired. Because the '758 patent had already expired by the time that EmeraChem had expressly asserted claims 3 and 16 of the '758 patent, Volkswagen's continued sales thereafter of its accused diesel powered vehicles is not an infringement of claims 3 and 16, much less a willful infringement. *Spirit Comms. Co. v. Atlantic Broadband Finance, LLC*, 2021 WL 982735, **1-2 (D. Del. Mar. 16, 2021); *Signal IP, Inc. v. Nissan N. Am., Inc.*, 2014 WL 12597125, *3 (C.D. Cal. Sept. 19, 2014).

B. Any Infringement Of The '346 Patent By Volkswagen Was Not Willful As A Matter Of Law

EmeraChem alleges that “[t]he acts of Defendants complained of herein have been done willfully with knowledge of, or reason to know, that they infringe, contribute to infringement, and induce infringement of the claims of the '346 patent.” D.I. 25 at p. 11, ¶52. EmeraChem is requesting a trebling of any damages award under §284 as a result of this alleged willful infringement. D.I. 25 at p. 12, ¶4. Volkswagen seeks partial summary judgment on this portion of EmeraChem's claim.

After *Halo*, pre-suit knowledge of the patent alleged to be willfully infringed continues to be a prerequisite to enhanced damages. *Halo*, 136 S. Ct. at 1933 (“But culpability is generally measured against the knowledge of the actor at the time of the challenged conduct.”); *see also Seagate*, 497 F.3d at 1374 (“However, when a complaint is filed, a patentee must have a good faith basis for alleging willful infringement. Fed. R. Civ. P. 8 & 11(b). So a willfulness claim

asserted in the original complaint must necessarily be grounded exclusively in the accused infringer's *pre-filing* conduct.”); *Rembrandt Social Media, LP v. Facebook, Inc.*, 950 F. Supp.2d. 876, 884 (E.D. Va. 2014) (“A close examination of the amended complaint at issue makes clear that Rembrandt has not adequately pled pre-suit knowledge for willful infringement.”). When, as here, the accused infringer points to an absence of evidence concerning its pre-suit knowledge of the asserted patent, summary judgment of no willfulness is proper. *Olaf Sööt*, 325 F. Supp.3d at 461 (“If Defendants can point to an absence of record evidence concerning its knowledge of the ’48 patent and its claims – an essential element to a willfulness infringement claim – summary judgment is proper.”); *bioMerieux*, 2020 WL 759546, *13 (“With respect to [Defendant] Grifols, the record also lacks knowledge of the patents-in-suit until after this suit was filed.”); *Power Integrations, Inc. v. ON Semiconductor Corp.*, 396 F. Supp.3d 851, 891-92 (N.D. Cal. 2019).

Summary judgment of no willfulness of any infringement of the ’346 patent is warranted here because, quite simply, Volkswagen had no knowledge of the ’346 patent until after this suit was filed. On June 27, 2014, EmeraChem filed its Amended Complaint. Doc. No. 25. In its Amended Complaint, EmeraChem erroneously alleged for the first time that EmeraChem had placed Volkswagen on notice of all of the asserted patents, including the ’346 Patent, in June 2012.

Patent Infringement Counts

13. EmeraChem is the owner of all right, title and interest in U.S. Patent No. 5,451,558 (the “’558 Patent”), U.S. Patent No. 5,599,758 (the “’758 Patent”), (U.S. Patent No. 5,953,911 (the “’911 Patent”), ***U.S. Patent No. 7,951,346 (the “’346 Patent”)***, and U.S. Patent No. 6,037,307 (the “’307 Patent”) (***collectively the “EmeraChem Patents”***) ...

* * *

15. Defendants have, with full knowledge of the EmeraChem Patents, commenced and/or continued infringement of and otherwise acted in violation of Plaintiff’s rights with respect to the claims of the EmeraChem Patents in willful disregard of Plaintiff’s rights thereunder.

16. *Defendants were placed on notice of the EmeraChem patents and their infringement thereof by Plaintiff in June, 2012,* but Defendants refused to cease their infringing activity.

Doc. No. 25 at ¶¶13 & 15-16 (emphasis added). However, even a cursory review of EmeraChem's June 11, 2012 letter reveals that the '346 patent and '307 patent are mentioned nowhere. Cf. Exh. VW5 at EC192.

EmeraChem has now admitted that, contrary to the allegation erroneously pled in the Amended Complaint at paragraph 16, EmeraChem had not informed Volkswagen of EmeraChem's '346 patent prior to the filing of the original Complaint on March 31, 2014.

REQUEST FOR ADMISSION NO. 4: Admit that EmeraChem did not inform Volkswagen of the '346 Patent until the filing of the Complaint in this litigation.

RESPONSE: Admitted.

Exh. VW3 at p. 2. Volkswagen has certified that it did not become aware of EmeraChem's '346 Patent by any independent means prior to the service of EmeraChem's original Complaint (Doc. No. 1).

INTERROGATORY NO. 10: Describe in detail the date upon which, and the circumstances under which, you first became aware of the '346 patent and identify the person(s) who became aware of the '346 patent at that time.

ANSWER: Defendants object to this interrogatory to the extent it seeks the early disclosure of relying on an opinion of counsel as a defense against an allegation of willful infringement. Defendants also object to this interrogatory to the extent it seeks information protected by the attorney-client privilege or work product privilege. Subject to the foregoing objections and the General Objections, Defendants respond that Volkswagen AG first became aware of the '346 Patent upon receipt of the original Complaint, which occurred after it was filed in this litigation on March 31, 2014.

Exh. VW4 at p. 8.

Consequently, this Court should grant partial summary judgment of no willfulness for any infringement of the '346 patent solely because Volkswagen had no notice of the '346 patent until

it was served with the original Complaint (D.I. 1). *Olaf Sööt*, 325 F. Supp.3d at 461; *bioMerieux*, 20 WL 759546, *13; *Power Integrations*, 396 F. Supp.3d at 891-92. Moreover, EmeraChem concedes that after EmeraChem filed this suit, Volkswagen, at most, “continued to sell” the accused VW diesel vehicles (see Exh. VW16 at p. 13), which cannot support willful infringement as a matter of law. *Intellectual Ventures I*, 234 F. Supp.3d at 611-12. At most, with respect to the ’346 patent, this is a “typical infringement case” for which enhanced damages is not warranted as a matter of law. *Halo*, 136 S. Ct. at 1932.

V. CONCLUSION

For the foregoing reasons, the Court should grant partial summary judgment that any infringement of EmeraChem’s ’758 patent and/or ’346 patent was not willful under 35 U.S.C. §284.

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CERTIFICATE OF SERVICE

I hereby certify that on the 21st day of May 2021 a copy of the foregoing **DEFENDANTS' OPENING BRIEF IN SUPPORT OF ITS MOTION FOR PARTIAL SUMMARY JUDGMENT OF NO WILLFUL INFRINGEMENT** was served on opposing counsel via email transmission, as follows:

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